

86/06 01



B·A·R·G NEWS

JUNE 1986

A.G.M. 27TH AT 7.30 PM.



© Monthly Newsletter of the
Ballarat Amateur Radio Group

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COMMITTEE

B.A.R.G. OFFICERS 1985-1986

			<u>HOME</u>	<u>BUSINESS</u>
President.	Lou Iaquinto.	VK3 DFI	49 2200	Ext.241 After 4.30
Vice President	Geoff Smith.	VK3 ADB		
Secretary	Jim Wright.	VK3 CFB	32 7563	
Asst. Secretary	Dick Forrester.	VK3 VU	35 7663	39 1001
Treasurer	Harry Hekkema.	VK3 KGL	35 7563	39 1001
Technical Officers	Phil Seddon	VK3 AQM	31 5220	31 3166
	Ian Robinson.	VK3 BTX	32 4139	
	Maurie Batt.	VK3 XEX	42 2245	
	Dick Antosiewicz.	VK3 AEX	32 3273	31 1818
Q.S.L. Manager	Cliff Bilston.	VK3 PAF		
Awards Manager	Maurie Batt.	VK3 XEX	42 2245	
Publicity Officer	John Hazledine.	VK3 CFH	39 1971	
Education Officer	Bob Terrill.	VK3 BNC	39 5317	39 1001
Property Officer	Dick Antosiewicz.	VK3 AEX	32 3273	31 1818
Newsletter Committee.	Dick Forrester.	VK3 VU	35 7663	39 1001
	Fred Quick.	VK3 NIH	32 3216	32 6455
	Ron Watkins.	VK3 XOA	35 6017	32 1447
	Henry Moritz.	VK3 DXC	35 5130	
	Fred Quick.	VK3 NIH	32 3216	32 6455
W.I.C.E.N. Committee	Dick Antosiewicz.	VK3 AEX	32 3272	31 1818
	Geoff Smith.	VK3 ADB	32 1037	
	Dick Forrester.	VK3 VU	35 7663	39 1001
Committee	Neil Davidson.	VK3 KQQ	35 9612	
	Peter Kenyon.	L30037		
	Evonne Wroe.		42 4376	

B.A.R.G. Meets the LAST FRIDAY of every month at the
BALLARAT EDUCATION CENTRE, Hopetoun Street. at 7.30 p.m.
 All Correspondence to P.O. Box 216E Ballarat East. 3350 Vic.

Awards Manager, VK3-XEX, R.S.D. Rokewood Junction. Vic.

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MINUTES OF GENERAL MEETING HELD 30th MAY 1986.

MEETING OPENED at 8.00pm by President Lou DFI who welcomed members and Ian UBI a prospective member.

APOLOGIES ADB, NIZ, YMW, NLR, PFF, PUD, SE, WN.

MINUTES as printed in News Letter confirmed. NFZ/VU.

CORRESPONDENCE There was no correspondence, but secretary reported a telephone call from W.I.A.Vic Division Secretary Des enquiring whether B.A.R.G. had offered to conduct the Q.S.L. Bureau for the division. This offer was unanimously rejected.

TREASURERS REPORT. General a/c \$571.26. VS&L a/c \$1131.01. VU/BNC.

QSL MANAGER Nothing received.

CLUB NET Going well but Band conditions bad.

AWARDS MANAGER Applications received for 3 DX Widows awards.

REPEATER RDS. Still awaiting site permission and Licence.

HAMVENTION. VK5 AGR confirmed that he will be in attendance. A Hamvention Committee meeting will be held on 18th June at the Education Centre.

GENERAL BUSINESS.

Moved DOK seconded DXC that Club purchase envelopes for News Letter.
Motion Carried.

Dick VU reported that an Antenna Testing day for VHF antennas would be held in conjunction with G.A.R.C. on a date to be arranged. Interested parties contact Dick V.U.

MEETING CLOSED at 8.40pm and George DOK then proceeded to dispose of Unwanted, useful, useless equipment on behalf of the members.

THANKS GEORGE

73s Jim CFB.

NEXT MEETING IS A.G.M. on 27th June. SUPPER PROVIDED. BE THERE.

Committee Meeting Wednesday 16th July at Education Centre.

WANTED URGENTLY AT 120 ANTENNA TUNER by Jim CFB. 32 7563

Contrary to rumours circulating I am not going out of Amateur Radio, I disposed of the Yaesu equipment to reduce the considerable cash investment tied up in the shack.

CFB.

86/06 04

TO THE LADY OF THE HOUSE.

B.A.R.G. LADIES COMMITTEE.

LADIES WE WOULD LIKE TO INVITE YOU ALONG TO SHARE THE
FELLOWSHIP AND SOCIAL ACTIVITIES OF OUR SUPPORT GROUP.

President,
Karen Felstead.

12 th June, 1986. MEETING: June Forrester's

Present: Karen, June, Fred, Pearl.

Apologies: Betty.

Due to lack of members we are unable to have our PROGRESSIVE DINNER
We apologise for any inconvenience this may cause.

At our meeting it was decided that we have a members drive. Any
ladies interested please contact June Forrester by PH 357663.

We have six meetings a year. Our function is to support the
Radio Club in Socialization and fund raising. The Ladies at
present who are members find that membership only involves a
minimal amount of time.

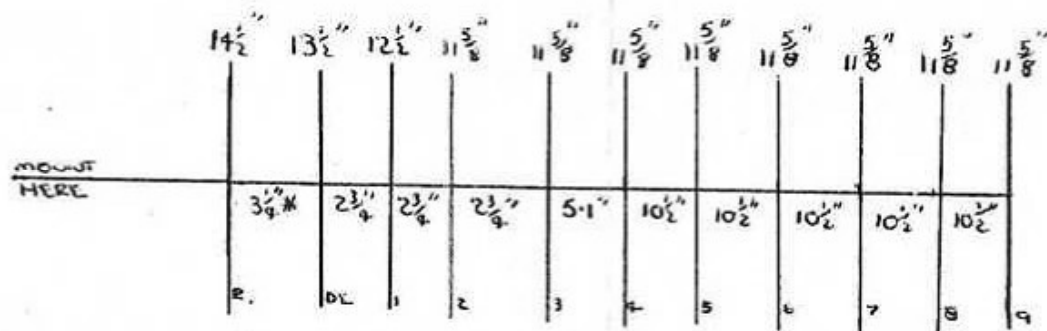
Our next meeting on August 14th, will be a Ladies Night out.
Details in next month's magazine.

Congratulations to Kim & Ernie Turner on the arrival of a baby girl.

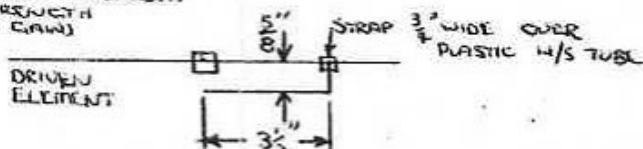
June Forrester,
Secretary.

11 ELEMENT 70cm YAGI

MATERIAL :- 80cm Ø (2.5m) $\frac{1}{2}$ " (1.25 cm) SOL ALUMINIUM
ELEMENTS 13' (4m) $\frac{3}{16}$ " (5mm) Ø B. ALUMINIUM TUBE.



*THIS MEASUREMENT MAY VARY
ADJUST FOR MAXIMUM
FIELD STRENGTH
(FORWARD GAIN)



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TO ALL MEMBERS AND SWL'S

Well another twelve months have gone by, and a very good time was had by all who came up on the net.

I would like to thank all stations who called in during the year as without your help the net would cease to exist. So keep Thursday nights free and call in and contribute to the success of the Club net.

I would also like to thank all the people who took turns at running the net, and gave me a rest from being in charge every week. I hope you all come to the A.G.M., and give your vote to all office bearers.

I would like to thank Lou VK3DFI for all his support on the net and congratulate him on his year as president for a job well done.

My twelve months as net co-ordinator was very enjoyable and I hope the next co-ordinator gains as much enjoyment out of amateur radio as I do. Also I must thank Maggie for bringing the Scouts and Girl Guides on to the net and for all the help she gives them in building projects for their badges. Great job Maggie. Congratulations on new call VK3CFI. Here's hoping that all the members who have not made contact on the club net will call in soon.

73's

VK3KQF

Fred - Net Co-ordinator (Retired)

Hi Hi

..... THE JOY OF BEING AN EDITOR.....

Getting out this journal is no picnic,
 If we print jokes people say we are silly;
 If we don't they say we are too serious.
 If we snip things from other magazines,
 We are too lazy to write them ourselves;
 If we don't, we are too fond of our own stuff.
 If we stick close to our job all day,
 We ought to be hunting up articles.
 If we don't get out and try to hustle,
 We ought to be at our job in the office.
 If we don't print contributions,
 We don't appreciate true genius;....
 And if we print them the journal is filled with junk,
 If we make a change in the wording of a contribution,
 we are too critical;
 If we don't we are asleep.
 It is more likely that someone will say that we even
 sneaked this from some other magazine;
 -- as a matter of fact WE DID.

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From the shack of VK3PAF.

QSL'ing is still on the quiet side, so it gives me a little time to do those things that one likes to do. Get the logs up to date, sort out how many countries I have worked, how many 10 10ers that have had a Qso with me and swapped a number. Or maybe how many counties I have worked in the USA.

One thing that I have, is a nice lot of local QSL cards in my collection. But there are a lot that I do not have, and have never even seen. This brings me to the point of how many of you have not seen my card or for that matter your card?????

Do you the members think as I do, it would be nice to see just what the other chaps card is like. I for one would like to see a card from each member in the club files, and in another 50 years or so the members of that era will be able to say "Who the hell was that chap". I also think it would be a good way to record in a very personal manner the members of the club. It could also be a nice display board at outings of the club, so it's over to you for your thoughts on the matter.

Would you all please note...the phone number in the news letter is incorrect for VK3PAF, as I no longer have the phone on, and the lady that now has my number is a little more than vocal when you ask for me. So please call me on air net nights, or write to me at my home ...13 Collins Ave SEBASTOPOL 3356.

Many thanks

Cliff VK3PAF.

COMMENT

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Another financial year has gone by for the Ballarat Amateur Radio Group. Now is the time to stop and think of what the group achieved in the past 12 months and, what it can achieve in the coming 12 months.

How many people you work with, your friends and relations are aware of amateur radio or the B.A.R.G? Are we some kind of secret society? A couple of ideas that spring to mind are, (1) a public awareness campaign. This could take the form of a display at Wendouree Village (for instance) with displays of everything from ATV to RTTY and packet radio. (2) Promotional material, advertise our group and hobby by the use of posters handout material etc. This could be left in various shops, shop windows or wherever. These are only my own personal ideas, other members may have more original ideas, so be at the meeting and make some suggestions.

With band conditions fairly quiet at this time of the sunspot cycle and our cold winter months, we should be considering how best to attack the DX when, and if it ever returns. How will you snare that elusive station when it appears? New rig, antenna, amplifier or, a darn good tuneup? Remember to do now while the bands are quiet, it's no good waiting until the DX is on the air, and then complaining that you could not work him due to the rig failing, or your antenna fell down due to lack of maintenance.

Finally, just a word of thanks to the members who contributed articles for the magazine, I would like to see every member contribute at least 1 item during the coming year to assist the next editor, whether it be myself or someone else. Also, I would like to say congratulations to Ernie & Kim Turner on the arrival of their new born, to Phil & Chris Seddon on their recent new arrival to the family and finally to Maggie on obtaining her full call VK3CFI.

73,

VK3XOA

Editor.

This space is left blank to allow you to use the nomination form on the reverse side.

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prices and information.*

EVERYTHING FROM A TO Z IN ELECTRONICS

B.A.R.G. A.G.N. Election of Officers 1986-87.

I.....being a member of the Ballarat Amateur
Radio Group hereby nominate.....for the office
of.....

I.....accept the above nomination.

.....

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Just a note to...

To: The Secretary
From: Maggie VK3NQQ

Thank you for the \$25.00. I used the money to buy four Morse Code Trainer Kits and one book, Fun Way Volume II. All were purchased from Dick Smith Ballarat.

As a spin-off from Jamboree On the Air last October, four young people from Beaufort showed an interest in amateur radio. The three Guides needed to put together the kit as a requirement for their Radio Communication badge.

One of the Guides lost interest, so I put her kit together myself. I am glad I did because the kids asked so many questions!

In retrospect, it was harder to work with the two 6th graders than the one girl in Form 3. Chris and Ntasha were hesitant, to the point of being scared, to use the soldering iron, so the going was slow. They checked and rechecked both the parts list and the placement of the components on the PCB. They compared soldering efforts. And they asked questions, a steady stream of them, about amateur radio.

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One of the kits didn't work. I had it checked out by someone who has better technical knowledge than I have, and he suggested I return it to Dick Smith. I gave Ntasha my completed kit so she could start studying more code.

Melissa is in Form 3 and had already done some soldering in school. She had no problems with looking at the directions and diagrams in the book and relating them to the PCB in front of her. We completed the project in a short 45 minutes! Melissa still has the Fun Way Vol. II book and plans to put together two other kits on her own. The Fun Way book will remain as part of the Beaufort Guides' library.

Since then, all three young people have been to the house to participate in the BARG net and other contacts. Both Chris and Ntasha have borrowed our backup rig. They learned the basics of antennas, power supplies, and call signs.

It seems to me that the best part of this project has been the exposure the three families have had to amateur radio. So, thanks again for the grant. It has been an interesting and productive few months.

73,

Maggie

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A DECIBEL QUERY

We often use decibels with gay abandon but how many of us really understand what they mean. Here is a little test you might like to try. If you can solve it without needing to consult any other sources of data then you can truly say you are familiar with the concepts. All you have to do is fill in the rest of the table given the stated values. Remember if you halve or double the power then the change is 3dB. 10dB represents a power ratio of 10:1 whilst when working in volts a halving or doubling represents a change of 6dB. With that data try filling in the table below. When you have completed that then try this little problem. An amplifier has a voltage gain of 86dB. What is the amplification? Hint.. remember that 86 can be broken down into the progression 20+20+20+20+6. Now, wasn't that easy!!! Now try 104dB and 112dB.

If you run into difficulty solving the problems then give me a call on the B.A.R.G. net (3610KHz) and I will help you out. (Answers in next months mag. if I can work them out! ed.)

73's,
Reg VK3CAZ

dB	Power ratio	Voltage ratio
1		
2		
3	2:1	
4		
5		
6		2:1
7		
8		
9		
10	10:1	
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

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The following article has been submitted by Murray VK3AAI. Due to the length of the article it will be serialised over a number of issues. (Ed.)

INTRODUCTION

Packet radio is, essentially, the transmission and reception of keyboard characters and computer data via any amateur radio transceiver, using the ASCII code. However, the big feature of this mode is that it is ERROR FREE. This fact alone places it far in advance of any mode yet devised, although there are many other features of this new technology that will become apparent as you read this book.

Unlike ordinary RTTY or ASCII, The data does not pass directly from the source to the radio or vice-versa. Instead it is routed through a terminal node controller, where the special characteristics of this mode are implimented. This terminal node controller (referred to as a TNC) is really a microprocessor based device which is connected to a source of digital data via its RS-232C serial data port, and to an ordinary amateur radio transceiver via its radio port. Thus, it stands between the digital device and the radio.

Usually the TNC will be connected to a data terminal or computer via the data port, and all commands to the TNC as well as data to be transmitted will come from this device. The TNC handles all the chores involved in actually sending and receiving the data, including packaging the data into bursts called packets or frames. Here now is the next feature to be considered. The on-air transmissions of data come in short bursts. Unlike, say, RTTY where, should you wish to send a block of text containing about 600 words, your transmission would take up 10 minutes of on-air time, based on the usual

amateur RTTY speed of 60 words per minute. The same text sent by packet on VHF would be transmitted at a speed of 1200 baud and broken up into 3 frames or packets. Each frame would consist of a starting signal, a synchronization signal, the call sign of the station to whom you are sending the packet, your own call sign, other control signals, the text that you typed, or at least 200 characters of it, a "frame check sequence" which is a numeric value based on the make-up of characters in the text, and finally, a closing signal.

Before you start tearing your hair out at having to type in all these various pieces of information each time - forget it, the TNC has been programmed to do it all for you! Not only that, but once having established contact with the desired station you are in a condition called a "virtual connection", which means that you are virtually hard wired to that station. All other transmissions on the air will be ignored. There's more: your transmitter will keep on sending the first frame until it receives back from the other station, a signal with the numeric value of the text characters and only after receiving the correct signal, will it continue on with the next frame. The number of "attempts" may be chosen by the operator. The air time of the bursts are measured in seconds, not minutes. Of course, one can set up their receiver to "eavesdrop" on the traffic on air should that take your fancy. If you stop and think about all this at this stage, you will realise that there is a lot of time spent NOT transmitting, and it is during that time that other TNC's are listening for a break in transmissions so as to send their text to their designated station. All this takes place on the same

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frequency on a shared basis. This means that many contacts can take place simultaneously, on the one frequency, each block of text arriving at its own destination, error free (or not at all if the desired station is not on the air or out of range)

Should stations prove to be out of range too often, one solution is to set up a repeater on a hill. This works like the common voice repeater EXCEPT that it receives the frame, stores it in its own microprocessor and then re-transmits it immediately AFTER. Thus, the packet repeater only uses one frequency. This may still be the same frequency that perhaps a couple of stations might be using for a simplex contact while within range of the repeater but because of them having typed the appropriate instructions before commencing their contact, the repeater knows not to take any action on that particular series of packets.

It should be pointed out also, that at the receiving station, the text is displayed on the screen, or typed out on the printer (as decided by the receiving operator) in one continuous whole as the TNC takes care of the break between packets.

All these housekeeping functions of the TNC require quite a lot of computing power, so the TNC, while being very easy to construct, is certainly a product of the modern age. The actual programme contained on board is very complex, and the simple description given here of the functions of the system cannot convey the degree of sophistication that amateur radio is about to embark on. Exactly the same thing happened back in the '60s when someone mentioned "Sideband" and many amateurs were unable to enjoy the benefits of that new technology simply

because it was new, and represented a change to their long established methods. The same thing is making itself evident even at this early stage of packet radio and the sad thing is that it is they who become the losers in the long term. Those to whom packet radio appeals (and that will not be all amateurs) are set to enjoy one of the quantum leaps in technology of the 20th century

Before we close this brief description of the system, one last feature remains. That is the ability of each packet station to become a repeater in its own right. This feature is termed digipeating, and simply means that your message may be sent to its distant destination through several home stations over the country. This may even be done whilst the intermediate stations are unattended, however, as unattended operation is not permitted under the current regulations, the WIA are presently preparing a submission to the Department on this matter, so we should be able to enjoy this feature in the not too distant future.

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